

Applicant: William Galbraith  
Application No.: 10/804,592  
Amendment to Office Action dated March 5, 2008  
Docket No.: P-6007/1 (102-585 RCE2)  
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### **REMARKS**

Reconsideration of this application is respectfully requested.

Claims 1-6, and 24-31 are in the application. Through this Amendment, claims 52 and 53 have been incorporated into claims 1 and 24. Accordingly, claims 52 and 53 have now been cancelled.

It is first noted that claims 52 and 53 were not rejected in the Office Action. With claims 52 and 53 having been incorporated into claims 1 and 24, respectively, it is respectfully submitted that all of the pending rejections have been overcome.

In the interest of proceeding prosecution efficiently, Applicant sets forth herein responses to the present rejections, but in view of the incorporation of claims 52 and 53 into claims 1 and 24, respectively.

In the Official Action, the Examiner rejected claims 1, 2, 4, 6 and 24-27 under 35 U.S.C. §103(a) as being allegedly unpatentable over Sjöholm et al. (U.S. Patent No. 4,061,466) in view of Spring et al. (U.S. Patent No. 5,643,721) and further in view of Degen et al. (U.S. Patent No. 5,567,615). The Examiner admitted that "Sjöholm et al. fail to teach the ligand attached to the support via an epoxy linkage." The Examiner relied on Spring et al. and Degen et al. for allegedly overcoming this deficiency.

Sjöholm et al. is directed to a biologically active composition and the use thereof. As indicated at col. 2, ll. 35-38, "[t]he biologically active substance is composed of macromolecules such as proteins, polysaccharides, polyamino acids, nucleic acids, separately or in mixtures with each other." The Examiner specifically relied on Example 9 of Sjöholm et al. Example 9 of Sjöholm et al. specifically discloses the use of bromosulphophthalein coupled by bromo-substitution to "crosslinked agarose." Sjöholm et al. do not disclose the use of an epoxy-

activated insoluble support. In fact, given that the agarose in Example 9 of Sjöholm et al. is crosslinked, it is clear that the insoluble support is not epoxy-activated.

Under *KSR*, the Examiner must provide a rationale for supporting the rejection. MPEP §2141(III). In the Office Action, the Examiner appears to be relying on the rationale set forth in MPEP §2143(A), namely the combination of “prior art elements according to known methods to yield predictable results.”

As explicitly stated in MPEP §2143(A), “the rationale to support a conclusion that the claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods **with no change in their respective functions.**” (emphasis added). Further, MPEP §2143.01 states that, under *KSR*, “if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.”

Here, the Examiner relied upon Example 9 of Sjöholm et al. for its disclosure of agarose. However, Example 9 of Sjöholm et al. clearly discloses the use of crosslinked agarose as an insoluble support, not an epoxy-activated insoluble support as is presently claimed. In fact, rendering the agarose in Sjöholm et al. epoxy-activated would completely alter the function of the agarose of Sjöholm et al. Such alteration is contrary to the explicit requirements for establishing a *prima facie* case of obviousness under *KSR*, and is thus improper. Sjöholm et al. cannot be properly combined with Spring et al., Degen et al. or other prior art to alter its agarose. It is respectfully submitted that claims 1 and 24, along with dependent claims 2, 4, 6 and 25-27, are patentable over Sjöholm et al., Spring et al. and Degen et al., each taken alone or in combination.

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In addition, the Examiner rejected claims 1-6 and 24-27 under 35 U.S.C. §103(a) as being allegedly unpatentable over Grahnen et al. (Eur. J. Biochem., 80, 573-580 (1997)) in view of Spring et al. and further in view of Degen et al. The Examiner admitted that "Grahnen et al. fail to teach the ligand attached to the support via an epoxy linkage" and relied on Spring et al. and Degen et al. for allegedly overcoming this deficiency.

Grahnen et al. is directed to a method of preparation of ligandin with glutathione-S-transferase activity from porcine liver cytosol. As set forth at p. 574 of Grahnen et al., sepharose 4B is first cross-linked with 2,3-dibromopropanol (to give Sepharose CL-4B).

As set forth above, under the explicit requirements set forth under *KSR*, the Examiner may not alter the function of the elements upon which the Examiner relied on in an obviousness rejection. The use of a cross-linked sepharose, such as that disclosed in Grahnen et al., is functionally different from an epoxy-activated insoluble support, as is presently claimed. As such, Grahnen et al. cannot properly form the basis for an obviousness rejection of the claims as currently pending. Moreover, Spring et al. and Degen et al. cannot be relied upon to overcome this deficiency. It is respectfully submitted that claims 1 and 24, along with dependent claims 2-6 and 24-27, are patentable over Grahnen et al., Spring et al. and Degen et al., each taken alone or in combination.

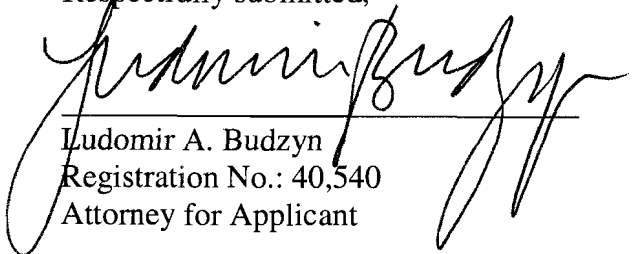
The Examiner rejected claims 24 and 27-31 under 35 U.S.C. §103(a) as being allegedly unpatentable over Pieper et al. (U.S. Published Patent Application No. 2002/0127739) in view of Grahnen et al., and further in view of Spring et al. and further in view of Degen et al. The Examiner admitted that Pieper et al. fail to teach a ligand of bromosulfophthalein. The Examiner relied on Grahnen et al. for allegedly overcoming this deficiency. The Examiner further relied on Spring et al. and Degen et al. for the alleged notion of substituting an epoxy linkage.

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Pieper et al. is directed to a method for sample preparation which, as admitted by the Examiner, does not disclose the use of bromosulfophthalein. Pieper et al. disclose a process using a binding agent affixed to beads made of various materials, including agarose. However, the Examiner relied upon Grahnen et al. for disclosing a ligand of bromosulfophthalein attached to agarose. As noted above, under *KSR*, the Examiner cannot alter the functionality or principle of operation of the relied-upon prior art elements. With reliance on Grahnen et al., the hypothetical combination of Pieper et al. and Grahnen et al. would result in bromosulfophthalein linked to a cross-linked sepharose. As discussed above, the functionality of this hypothetical combination cannot be altered. Accordingly, the hypothetical combination fails to yield the use of an epoxy-activated insoluble support, as set forth in claim 24. It is respectfully submitted that claim 24, along with dependent claims 27-31, are patentable over Pieper et al., Grahnen et al., Degen et al. and Spring et al., each taken alone or in combination.

Favorable action is earnestly solicited. If there are any questions or if additional information is required, the Examiner is respectfully requested to contact Applicant's attorney at the number listed below.

Respectfully submitted,



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